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WHAT IS CLAIMED IS

1
2 1. A voice over Internet protocol (VOIP) system for
3 supporting real time communications for both pulse code modulation
4 (PCM), telephone networks and Internet protocol (IP) telephone
5 packet networks in an enterprise including in combination:

6 a directory of PCM and IP addresses in an enterprise
7 including a translation address database for members of the
8 enterprise having IP terminals, addresses for IP telephones with
9 Internet connectivity, and addresses of other VOIP gateways on the
10 Internet;

11 a VOIP gateway linked with the directory and connected to
12 receive requests from both PCM and IP telephones, the VOIP gateway
13 providing voice prompts and responses to calling party requests in
14 the form of either DTMF digits or voice signals; and

15 the VOIP gateway further operating in response to calling
16 party approval to automatically process a link between the calling
17 party and a called party using a translated address assigned in the
18 directory translation address database to the called party.

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20 2. The VOIP system according to Claim 1 wherein the voice
21 prompts and responses of the VOIP gateway are provided by a voice
22 response unit (VRU) built into the VOIP gateway.

23
24 3. The VOIP system according to Claim 2 wherein the directory
25 is in the form of a dedicated directory server linked with the VOIP
26 gateway over a local area network (LAN).

1 4. The VOIP system according to Claim 3 wherein the directory
2 includes fields to uniquely identify a member of the enterprise by
3 name and number codes required to translate between PCM (PSTN) and
4 LAN (IP) environments.

5
6 5. The VOIP system according to Claim 1 wherein the voice
7 prompts and responses are provided by a voice response unit (VRU)
8 coupled over a local area network (LAN) to the VOIP gateway.

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10 6. The VOIP system according to Claim 5 wherein the directory
11 is in the form of a dedicated directory server linked with the VOIP
12 gateway over a local area network (LAN).

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14 7. The VOIP system according to Claim 6 wherein the directory
15 includes fields to uniquely identify a member of the enterprise by
16 name and number codes required to translate between PCM (PSTN) and
17 LAN (IP) environments.

18
19 8. The VOIP system according to Claim 1 wherein the directory
20 is in the form of a dedicated directory server linked with the VOIP
21 gateway over a local area network (LAN).

22
23 9. The VOIP system according to Claim 1 wherein the directory
24 includes fields to uniquely identify a member of the enterprise by
25 name and number codes required to translate between PCM (PSTN) and
26 LAN (IP) environments.

1 10. A method for supporting real time communications for and
2 between both pulse code modulation (PCM) telephone networks and
3 Internet protocol (IP) telephone packet networks in an enterprise
4 including the steps of:

5 providing a gateway responsive to calls from calling
6 parties on either an IP telephone network or a PCM telephone
7 network for answering calls;

8 playing directory prompt messages to the calling party;
9 responding to DTMF or voice recognition signals from the
10 calling party for obtaining the closest match of a name found in a
11 directory database;

12 negotiating an acceptable name with the calling party;
13 looking up an address translation in a directory database
14 in response to a name selected by the calling party; and

15 attempting a real time call to the called party utilizing
16 a translated address if required.

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18 11. The method according to Claim 10 wherein the directory
19 prompts are obtained from an IP gateway.

20
21 12. The method according to Claim 10 wherein the step of
22 negotiating an acceptable name includes responses by the gateway
23 for finding the next name and finding the previous name for
24 allowing a calling party to accurately access a desired name.

25 13. The method according to Claim 12 wherein the directory
26 prompts are obtained from an IP gateway.